

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An appendable device, comprising:
a housing having a fastener configured to enable the appendable device to be mounted to a surface of an entity in a process control system;
a memory disposed within the housing;
an input/output interface disposed within the housing, wherein the input/output interface is adapted to communicate with at least one of a sensor or a control output operatively coupled to the appendable device; and
a processor disposed within the housing and communicatively coupled to the memory, wherein the processor is programmed to communicate with the input/output interface and to communicate information related to the at least one of the sensor or the control output, as the information becomes available, to another device via a communication network.

Claim 2 (original): The appendable device of claim 1, wherein the processor is further programmed to enable the appendable device to perform at least a part of a closed-loop process control algorithm.

Claim 3 (previously presented): The appendable device of claim 1, wherein the processor is further programmed to diagnose a condition associated with at least one of the appendable device or a process associated with the appendable device.

Claim 4 (original): The appendable device of claim 1, wherein the processor is further programmed to detect an alarm condition and to send alarm information to the other device via the communication network in response to detecting the alarm condition.

Claim 5 (original): The appendable device of claim 1, wherein the other device is a wireless handheld device.

Claim 6 (original): The appendable device of claim 1, wherein the processor is further programmed to enable the appendable device to function as a part of a communication path for another appendable device.

Claim 7 (previously presented): The appendable device of claim 1, wherein the at least one of the sensor or the control output operatively coupled to the appendable device is disposed within the housing.

Claim 8 (previously presented): The appendable device of claim 1, wherein the communication network uses at least one of a wireless or a hardwired communication technique.

Claim 9 (previously presented): The appendable device of claim 8, wherein the at least one of the wireless or the hardwired communication technique includes the use of an internet.

Claim 10 (original): The appendable device of claim 1, further including a power source disposed within the housing and adapted to generate power in response to vibration of the surface.

Claim 11 (previously presented): The appendable device of claim 1, further including a power source disposed within the housing, wherein the power source uses at least one of a capacitor, a battery, a light or a magnetic field to provide power to the appendable device.

Claim 12 (previously presented): The appendable device of claim 1, wherein the fastener includes at least one of an adhesive, a screw, a clamp, a tie-wrap or a magnet.

Claim 13 (previously presented): The appendable device of claim 1, wherein the housing is adapted to be mounted within at least one of a rugged environment or a hazardous environment.

Claim 14 (withdrawn): An appendable device, comprising:
an antenna;
a transceiver communicatively coupled to the antenna;

a processor communicatively coupled to the transceiver, wherein the processor is programmed to perform one of a periodic data monitoring activity and a process control activity;

a memory communicatively coupled to the processor;

an input/output interface adapted to operatively couple the processor to one of a sensor and a control output; and

a housing that holds the transceiver, the processor, the memory and the input/output interface, wherein the housing is adapted to be attached to a surface.

Claim 15 (withdrawn): The device of claim 14, further including a power source disposed within the housing, wherein the power source provides power using one of a capacitor, a battery, vibrations, light and a magnetic field.

Claim 16 (withdrawn): The appendable device of claim 14, wherein the antenna is one of a wire whip, a coil formed integrally with the housing, a coil formed using conductive traces on a printed circuit board, and a discrete wire coil.

Claim 17 (withdrawn): The appendable device of claim 14, wherein the processor is programmed to convey information between the input/output interface and the transceiver.

Claim 18 (withdrawn): The appendable device of claim 14, further including a termination portion adapted to electrically couple wires to the input/output interface.

Claim 19 (withdrawn): The appendable device of claim 18, wherein the termination portion includes one of screw terminals, solder pads and jacks.

Claim 20 (withdrawn): The appendable device of claim 14, further including one of a sensor and a control output disposed within the housing.

Claim 21 (withdrawn): The appendable device of claim 14, further including an electrical conductor extending from the housing for communicatively coupling one of a sensor and a control output to the input/output interface.

Claim 22 (withdrawn): The appendable device of claim 14, wherein the housing is adapted to be attached to the surface using one of an adhesive, a self-tapping screw, a self-threading screw, a magnet, a clamp and a tie-wrap.

Claim 23 (withdrawn): The appendable device of claim 14, wherein the housing is adapted to be attached to a sheet metal surface.

Claim 24 (withdrawn): The appendable device of claim 14, wherein the surface is associated with a piece of equipment within a process.

Claim 25 (withdrawn): The appendable device of claim 14, wherein the housing is adapted to be mounted within one of rugged environment and a hazardous environment.

Claim 26 (withdrawn): The appendable device of claim 14, wherein the processor is programmed to communicate with another remotely situated device using a wireless communication technique.

Claim 27 (withdrawn): The appendable device of claim 26, wherein the other remotely situated device is one of a controller, another appendable device and a workstation.

Claim 28 (withdrawn): The appendable device of claim 14, wherein the processor is programmed to perform one of a data monitoring activity, a data analysis activity and a control activity.

Claim 29 (withdrawn): The appendable device of claim 14, wherein the input/output interface is adapted to communicate with a plurality of sensors.

Claim 30 (withdrawn): The appendable device of claim 14, wherein the input/output interface is adapted to communicate with a plurality of control output devices.

Claim 31 (withdrawn): The appendable device of claim 14, wherein the processor is programmed to facilitate automatic configuration of a process control system.

Claim 32 (currently amended): An appendable device, comprising:
a housing having a fastener configured to facilitate surface mounting of the appendable device to an entity in a process control system;

a power source disposed within the housing;
a transceiver disposed within the housing;
an antenna coupled to the transceiver and adjacent to the housing;
a memory disposed within the housing;
an input/output interface disposed within the housing;
a sensor coupled to the input/output interface; and
a processor communicatively coupled to the memory, the transceiver and the input/output interface, wherein the processor is adapted to execute software stored in the memory to sense a parameter using the sensor and to use the transceiver and the antenna to transmit information associated with the sensed parameter to another device via a wireless communication network as the information becomes available.

Claim 33 (previously presented): The appendable device of claim 32, wherein the fastener includes at least one of an adhesive, a screw, a clamp, a magnet or a tie-wrap.

Claim 34 (original): The appendable device of claim 32, wherein the power source is adapted to generate power in response to vibration of the surface.

Claim 35 (withdrawn): An appendable system for controlling a process, comprising:
a plurality of appendable devices, each of which includes an antenna, a transceiver, a processor, a memory, an input/output interface adapted to enable the processor to communicate with one of a sensor and a control output, and a housing adapted to facilitate surface mounting of the appendable device; and

a computer system adapted to communicate with one or more of the plurality of appendable devices so that a first one of the plurality of appendable devices senses a first parameter of the process and a second one of the plurality of appendable devices controls a second parameter of the process based on the first sensed parameter.

Claim 36 (withdrawn): The appendable system of claim 35, wherein the process is a closed-loop process.

Claim 37 (withdrawn): The appendable system of claim 35, wherein each of the plurality of appendable devices is adapted to generate information associated with one of an alarm condition of the process and a condition of the appendable device.

Claim 38 (withdrawn): The appendable system of claim 35, wherein the computer system is further adapted to configure the plurality of appendable devices based on configuration information stored in one of a central database and the plurality of appendable devices.

Claim 39 (withdrawn): The appendable system of claim 35, wherein the computer system is further adapted to perform a security function that prevents unauthorized access to the appendable system.

Claim 40 (withdrawn): The appendable system of claim 35, wherein the computer system is further adapted to interface with a wireless handheld device.

Claim 41 (withdrawn): The appendable system of claim 35, wherein each of the plurality of appendable devices includes an internal power source that provides power using one of a capacitor, a battery, vibrations, light and a magnetic field.

Claim 42 (withdrawn): The appendable system of claim 35, wherein the housing is adapted to be mounted to a surface using one of an adhesive, a screw, a clamp, a magnet and a tie-wrap.

Claim 43 (withdrawn): The appendable system of claim 35, wherein the antenna is one of a wire whip, a coil integrally attached to the housing, conductive traces on a printed circuit assembly and a discrete wire coil.

Claim 44 (withdrawn): The appendable system of claim 35, wherein the computer system is one of a controller and a workstation.

Claim 45 (withdrawn): An appendable system for use with a process, comprising:
a plurality of appendable devices, each of which includes an antenna, a transceiver, a processor, a memory, an internal power source, an input/output interface adapted to enable the processor to communicate with a sensor, and a housing adapted to enable mounting of the appendable device to a surface, wherein each of the processors is programmed to enable its respective appendable device to communicate with another one of the plurality of appendable devices; and

a workstation adapted to communicate with one or more of the plurality of appendable devices so that one of the plurality of appendable devices senses a parameter of the process and communicates information associated with the sensed parameter to the workstation.

Claim 46 (withdrawn): The appendable system of claim 45, wherein the housing of each of the plurality of appendable devices is adapted to be mounted to the surface using one of an adhesive, a screw, a clamp, a magnet and a tie-wrap.

Claim 47 (withdrawn): The appendable system of claim 45, wherein the one or more of the plurality of appendable devices communicates the information associated with the sensed parameter to the workstation via a communication network.

Claim 48 (withdrawn): The appendable system of claim 47, wherein the communication network uses one of a wireless and a hardwired communication technique.

Claim 49 (withdrawn): The appendable system of claim 45, wherein each of the plurality of appendable devices is identical to the other appendable devices.

Claim 50 (withdrawn): The appendable system of claim 45, wherein each of the plurality of the appendable devices is adapted to communicate with a plurality of sensors and a plurality of control outputs.

Claim 51 (withdrawn): A system for use with a process, comprising:
a plurality of devices, each of which includes a processor, a memory, an internal power source, an input/output interface adapted to enable the processor to communicate with a sensor, and a housing adapted to enable mounting of the device to an equipment surface, wherein each of the processors is programmed to enable its respective device to communicate with another one of the plurality of devices; and

a workstation adapted to communicate with one or more of the plurality of devices so that one of the plurality of devices senses a parameter of the process and communicates information associated with the sensed parameter to the workstation.

Claim 52 (withdrawn): The system of claim 51, wherein each of the plurality of devices is identical to the other devices.